



**of the European Atomic Energy Community (Euratom)  
for nuclear research and training activities (2007-2013)**

**Collaborative Project & Coordination and Support Action**

***CHANDA***

Project title: **solving CHallenges in Nuclear DATA**

Project number: **605203**

Project coordinator: **Centro de Investigaciones Energeticas,  
Medioambientales y Tecnologicas CIEMAT, Madrid,  
Spain**

HZDR participant: **Institute of Radiation Physics**

Starting date: **01.12.2013**

Duration (months): **48**

**Summary**

The CHANDA project main objective is to address the challenges in the field of nuclear data for nuclear applications and its acronym stands for “solving CHallenges in Nuclear Data”.

The project will prepare a proposal for an organization that will coordinate the nuclear data research program, and the infrastructures and capabilities of the EU Member States in a stable structure, well integrated with R&D coordination tools (EERA, HORIZON 2020) , and with priorities aligned with the SET Plan and the SRAs of the EURATOM Technological Platforms, including the following general objectives:

- to provide the nuclear data required for the safe and sustainable operation, and development, of existing and new reactors and nuclear fuel cycle facilities,
- to prepare solutions for the challenges risen by the nuclear data measurements needed by nuclear systems, like the data for highly radioactive, short lived or rare materials,

- to prepare tools that solve the challenges of quantifying and certifying the accuracy of the results of simulations based on available nuclear data and models (uncertainties),
- to identify and promote synergies with other nuclear data applications.

Using these tools will allow EU to upgrade the nuclear data up to the level needed by simulation codes to fulfill present requirements. In particular, the simulations should be able to: reduce the number of expensive experimental validations, to support the new tendencies in safety assessments to use best estimate codes to understand the limits of the plant safety towards extreme operational conditions, to optimize safety and performance of present and future reactors and other radioactive facilities. Other applications will benefit from this accuracy in nuclear data, notably in medical applications to optimize performance and minimize dose of radiation for diagnose and treatment.